INFORMATION LETTER

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Report to the Members

By WILLIAM U. HUDSON
1956 PRESIDENT OF N.C.A.

In the INFORMATION LETTER of June 2 I made a report to the members on the May meeting of your Board of Directors. In this report I outlined the various projects that the Board gave to the Association's officers and staff to work on during the remainder of the year. These are all under way.

I feel that the most important of these was the job of reappraising the Association's activities. I delayed appointing this committee until I had had an opportunity to talk with quite a few members in various sections across the country as well as consulting with the other officers of the Association. The members of the committee were announced in the INFORMATION LETTER of August 11. I trust that it is a committee that is truly representative of the membership and I am confident that they intend to do a thorough and careful job.

During the administration of Lou Ratzesberger, a few years ago, a similarly valuable piece of work was undertaken—the objective of which was to examine the efficiency of the operation of the Association. Since this new study supplements this earlier analysis of the Association's functions, it seems important that this Reappraisal Committee should have the benefit of the experience gained in the earlier study; consequently, we are fortunate in getting Lou Ratzesberger to accept the responsibility for directing this work. I am sure the membership will be most grateful to Lou for taking this on.

It is an indication of a healthy organization when it makes an objective examination of its activities from time to time. The wisdom of the Board in directing the President to appoint a committee to make a thorough evaluation of the Association's activities in the interest of the members who pay the cost is refreshing.

It should be noted that the objective of the Reappraisal Committee is

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First USDA Report on Household Food Consumption Indicates Families Are Buying More Convenience Foods than in 1948

Results of a nationwide survey by the USDA show that family spending for food increased about 25 percent per household between 1948 and 1955, while retail food prices increased only 6.5 percent.

According to USDA marketing specialists, part of the increased outlay during this period arose from the 6 percent increase in the average size of families and the 28 percent increase in income per capita, after taxes. Another factor, say Department researchers, is that homemakers bought more expensive foods, including more of those with "built-in" conveniences such as prepackaging and precooking.

This picture of the nation's food-buying was obtained in the spring of 1955, when 6,000 families were interviewed in the household food consumption survey made by USDA's Agricultural Research Service and Agricultural Marketing Service.

The report released August 27 is the first segment of a large array of food marketing and consumption data obtained in the nationwide survey. Data from this survey will be released in coming months in a series of reports on food consumption rates and expenditures for 200 food items.

The average family food bill for the nation was $27 a week in the spring of 1955. Food consumed at home cost $22, while meals and between-meal food eaten away from home accounted for the remaining $5. These figures include the cost of soft drinks and alcoholic and other beverages, but they do not include expenditures for many nonfood items, such as soap and paper goods, commonly bought in grocery stores. Since the average household size is 3.43 persons, the average expenditure per member each week was $7.89 for all food—$6.50 at home and $1.39 away from home.

Since 1942, when a similar survey was made, food expenditures per household throughout the country have increased considerably, along with income and prices. They were almost

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Guide to Record Retention Requirements

The *Federal Register* of August 28 contains a new guide to the retention of private records for possible government audit and examination.

The "Guide to Record Retention Requirements" lists what records must be kept and who must keep them, how long they must be kept, and where the recordkeeping requirements are published.

The list does not have the effect of law, regulation, or ruling. Rather, it is a guide to requirements that appear to have been in effect at the end of 1955.

The compilation is the second, the first having been published in the *Federal Register* of April 8, 1955.

The revised "Guide to Record Retention Requirements" was compiled by the Federal Register Division of the General Services Administration. All statements on recordkeeping requirements were reviewed by the federal agencies concerned.

The Internal Revenue Service, with 262 entries, had the greatest number

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FDA Publishes Proposal for Tuna Standards

Notice is given in the *Federal Register* of August 28 that the Secretary of Health, Education, and Welfare invites comments on a proposed standard of identity and fill of container for canned tuna.

The standard was proposed in a petition filed July 18 by the N.C.A. and 21 tuna packers. The notice also includes supplementary petitions filed by the California Fish Canners Association, Inc., and Hawaiian Tuna Packers Limited.

The standard would designate the species of fish which may be called

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Report to the Members

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to determine the relative importance of each of the various activities in which the Association is currently engaged. The committee is not setting itself up as a group of efficiency experts on how these activities should be conducted. It is concerned only with the value of what is being turned out by the Association—value as the Association member appraises it.

Lou, in organizing the work of his committee, has allotted each of the nine committee members a segment of the membership for which he is responsible. Each committee member will work directly with the members of the Board who represent the membership in his territory. The committee members' responsibility is to get as complete a cross section of opinion as possible from their respective directors and Association members. In order that this information may be assembled on a comparable basis, a form has been prepared that will tell the committee in some detail how the various company members would like to have their dues spent in support of the various Association activities. In some cases the committee members are planning group meetings with the Association membership to develop this information.

Since the results of this committee's study should reveal valuable inmation on how the membership would like to have their dues spent, the Reappraisal Committee plans to have a preliminary report ready about the first of December, and prior to the meeting of the Budget Committee. The final report of the Committee will be made to the Board at its meeting in Chicago at the time of the Convention, next February. The Budget Committee will meet the early part of December to prepare a 1957 budget to recommend to the Finance Committee at its meeting next February. It is apparent that the information that the Reappraisal Committee is assembling will be of considerable aid to the Budget Committee as the recommended budget will allocate funds to the various divisions of the Association in such proportion as will reflect the Budget Committee's best judgment regarding their relative importance to the membership.

Since the Finance Committee is necessarily large in order that all segments of the industry be adequately represented, it is desirable to have much of the preparatory work done on the budget by a smaller group. This smaller group is the Budget Committee and is, in reality, a subcommittee of the Finance Committee, appointed by the chairman of the Finance Committee. In other words, the Budget Committee is a sort of task force group within the Finance Committee, and reports only to that committee.

I would urge that each Director and each Association member give to the member of the Reappraisal Committee representing his territory any ideas, suggestions or opinions that he may have regarding the Association's functions. I know the Committee will welcome this and it will be most helpful to them in their work.

No Botulism in Canned Foods

The California State Department of Public Health on August 29 issued a press release correcting previously published statements in several California newspapers to the effect that a family of three had suffered botulinum poisoning after consuming a meal which contained commercially canned green beans. The San Francisco *Chronicle* carried a story August 30 quoting Acting State Health Director John C. Dement as saying "that laboratory tests for botulism were negative." It is presumed that other California papers that published the original erroneous diagnosis will now issue corrected versions.

The release from the California Health Department follows:

"Botulism, a highly fatal form of food poisoning, was ruled out today as the cause of illness suffered by three members of a Red Bluff family, according to the State Health Department.

"Independent laboratory tests conducted to date by the State Health Department and by Dr. Karl F. Meyer, director of the George W. Hooper Foundation, San Francisco, have been negative for botulism, reported Dr. John C. Dement, acting health director.

"All the facts gathered about the illness since it came to the department's attention, he added, fail to support a final diagnosis of botulism.

"The family which was discharged from the hospital several days ago became ill on August 22 after eating a dinner which included commercially canned green beans. While several Californians have become victims of botulism after consuming home canned food, there has not been a case of this type of food poisoning from eating commercially canned foods since the 1925 passage of the State Cannery Inspection Act."

Household Food Consumption

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three times as large in 1955 as the $10 a week family average 13 years ago, when incomes were much lower than in 1955.

A more precise comparison can be made for urban families of 2 or more persons, which were surveyed also in 1948. They spent an average of $13 in 1942, just twice that much—$26—in 1948, and $32 in 1955.

The 1955 survey indicated that total weekly food bills averaged $31 in the Northeast, $28 in the North Central region, $30 in the West, and $22 in the South.

Some decided differences between rural and urban food bills were shown. Urban families of all sizes spent an average of $30 a week for food, while rural families spent only a little more than half that amount—$17. Much of this difference is due to the greater quantity of home-produced foods used by rural families. Rural nonfarm families—those living in communities of less than 2,500 or in the open country but not classed as farm families—spent an average of $24.

Urban families with incomes under $2,000 had food bills averaging $18 a week, compared with $34 for those with incomes of $5,000 to $6,000. In general, food expenditures of farm families are less closely related to income, because many produce much of their own food.

One-member "families" also were included in the survey, if 10 or more meals a week were served at home. Average expenditure for food was $10, and of this total, $8.50 went for food at home and $1.50 for food away from home.

Single copies of *Household Food Consumption, Preliminary Report, 1955*, may be obtained upon request from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

N.C.A. at Oyster Cutting

Two members of the staff of the Northwest Branch of the N.C.A.—Dr. G. Ivor Jones and George M. Pigott—assisted members of the Pacific Coast Oyster Growers Association with their third canned oyster cutting held August 16, at Ocean Park, Wash. The cutting consisted of an examination of samples of all products in the Northwest oyster industry.

Proposal for Tuna Standards

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tuna. In addition to the true tunas, the standard would sanction use of the term "tuna" as applied to canned skipjack, in accordance with long custom, and would add to the list of tunas a species taken in the Pacific and canned in the Hawaiian Islands.

The standard would define the styles of pack and require the use of the names now in general use: "Solid" or "Solid Pack," "Chunks" or "Chunk Style," "Flakes," and "Grated."

The standard also would provide for differentiating between the shades of color of tuna and for labeling as "White," "Light," "Dark," "Blended Light and Dark," or "Blended Dark and Light."

The name of the packing medium would be required to be shown on the label. The permitted liquids are vegetable oils, olive oil, and water. The standard would also permit optional use of seasoning ingredients, with appropriate label declaration.

Written comments on the proposed standard should be addressed to the Department of Health, Education, and Welfare by September 27.

Thereafter, as soon as practicable, the Secretary of Health, Education, and Welfare will act on the proposal and, in the event it appears to be supported by reasonable grounds, will issue an order, which will be published in the *Federal Register*. Any adversely affected party may file, within 30 days thereafter, an objection to all or part of the order and request a public hearing on those issues to which objection is made. In the event no such objection is filed within 30 days, the order will be final without the necessity of a public hearing.

Following is the text of the FDA announcement:

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Part 37]

CANNED TUNA FISH

NOTICE OF PROPOSALS TO ADOPT DEFINITION AND STANDARD OF IDENTITY AND STANDARD OF FILL OF CONTAINER

Notice is hereby given that petition has been filed by National Canners Association, 1133 Twentieth Street, NW., Washington, D. C., and the following canners of tuna fish: Barbey Packing Corporation, F. E. Booth Company, Inc., California Marine Curing and Packing Company, Columbia River Packers Association, Inc., Crown Packers, Inc., Farwest Fishermen, Inc., Franco-Italian Packing Company, Inc., Hawaiian Tuna Packers Ltd., High Seas Tuna Packing Company, Inc., Pan-Pacific Fisheries, Inc., Point Adams Packing Company, Portland Fish Company, Seattle Seafoods, Inc., South Coast Fisheries, Inc., Star-Kist Foods, Inc., Union Fishermen's Co-Operative Packing Company, Van Camp Sea Food Company, Inc., Washington Packing Corporation, West Coast Fish Company, Inc., Westgate-California Tuna Packing Company, Whiz Fish Products Company.

The petition sets forth proposals to adopt a definition and standard of identity and a standard of fill of container for canned tuna. The proposals are set forth below.

Notice is also given that supplementary petitions have been filed by Hawaiian Tuna Packers Limited, 215 Market Street, San Francisco 8, California, and by the California Fish Canners Association, Inc., Ferry Building, Terminal Island, California, each proposing certain additional provisions to be added to the definition and standard of identity for canned tuna proposed by the National Canners Association. The proposals contained in these supplementary petitions are also set forth below.

Pursuant to the authority of the Federal Food, Drug, and Cosmetic Act (sec. 401, 701, 52 Stat. 1046; Pub. Law 905, 84 Cong., 2d Sess.; 21 U. S. C. 341, 371) and delegated to him by the Secretary of Health, Education, and Welfare (20 F. R. 1996), the Commissioner of Food and Drugs invites all interested persons to present their views in writing regarding the proposals published below. Such views and comments should be submitted in quintuplicate, addressed to the Hearing Clerk, Department of Health, Education and Welfare, Room 5440, 330 Independence Avenue SW., Washington 25, D. C., prior to the thirtieth day following the date of publication of this notice in the *Federal Register:*

1. The definition and standard of identity and the standard of fill of container proposed for canned tuna by the National Canners Association are as follows:

§ 37.1. *Canned tuna; definition and standard of identity; label statement of optional ingredients.* (a) Canned tuna is the food consisting of processed fish of the species enumerated in paragraph (b) of this section, prepared in one of the optional forms of pack specified in paragraph (c) of this section, conforming to one of the color designations specified in paragraph (d) of this section, in one of the optional packing media specified in paragraph (e) of this section, and may contain one or more of the seasonings and flavorings specified in paragraph (f) of this section. It is packed in hermetically sealed containers and so processed by heat as to prevent spoilage. It is labeled in accordance with the provisions of paragraph (h) of this section.

(b) The fish included in the class known as tuna fish are:

Thunnus thynnus	Bluefin tuna.[1]
Thunnus maccoyii	Southern bluefin tuna.[1]
Thunnus orientalis	Oriental tuna.[2]
Thunnus germo	Albacore.[2]
Parathunnus mebachi	Big-eyed tuna.[2]
Neothunnus macropterus	Yellowfin tuna.[2]
Neothunnus rarus	Northern bluefin.[2]
Katsuwonus pelamis	Skipjack.[2]
Euthynnus alletteratus	Little tunny.[2]
Euthynnus lineatus	Little tunny.[2]
Euthynnus yaito	Kawakawa.[2]

[1] "A Comparison of the Bluefin Tunas, Genus Thunnus, from New England, Australia, and California," by H. C. Godsil and Edwin K. Holmberg, State of California, Department of Natural Resources, Division of Fish and Game, Bureau of Marine Fisheries, Fish Bulletin No. 77 (1950).

[2] "Contributions to the Comparative Study of the So-called Scombroid Fishes," by Kamakichi

1956 Pack of Asparagus

The 1956 pack of canned asparagus totaled 6,245,072 actual cases as compared with the 1955 pack of 7,069,318 cases, according to a report by the N.C.A. Division of Statistics.

State	1955	1956
Green:	(actual cases)	
Md. and Del.	227,526	259,970
New Jersey	730,422	641,023
Illinois	529,059	603,816
Michigan	685,709	719,523
Wash. and Ore.	524,876	510,937
California	1,977,131	1,283,869
Other states	227,091	233,235
Total green	4,901,814	4,252,372
White:		
California	2,167,504	1,992,700
U. S. Total	7,069,318	6,245,072

Guide to Record Retention

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of recordkeeping requirements in effect at the end of 1955. Largely because of the large number of taxpayer entries, the Treasury Department accounts for the largest number among the departments. The Treasury total is 317, more than a fourth of all entries.

Next in order are USDA with 137 entries, Labor 81, Commerce 53, Interior 51, Defense 35, and Health, Education, and Welfare 27.

The *August 28* issue of the *Federal Register* may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 15 cents a copy.

Kishinouye, Journal of the College of Agriculture, Imperial University of Tokyo, Vol. VIII, No. 3 (1923).

[3] "A Systematic Study of the Pacific Tunas," by H. C. Godsil and Robert D. Byers, State of California, Department of Natural Resources, Division of Fish and Game, Bureau of Marine Fisheries, Fish Bulletin No. 60 (1944).

[4] "A Descriptive Study of Certain Tuna-Like Fishes," by H. C. Godsil, State of California, Department of Fish and Game, Fish Bulletin No. 97.

The description of each species will be found in the text to which reference is made.

(c) The optional forms of processed tuna consist of loins and other striated muscular tissue of the fish. The loin is the longitudinal quarter of the great lateral muscle freed, in accordance with good commercial practice, from skin, scales, visible blood clots, bones, gills, viscera, and black meat. Black meat is the non-striated part of the great lateral muscle of tuna, known anatomically as the median superficial muscle, highly vascular in structure, dark in color because of retained blood, and granular in form. Canned tuna is prepared in one of the following forms of pack, the identity of which is determined in accordance with the methods prescribed in paragraph (b) of § 37.2.

(1) Solid or solid pack consists of loins cut in transverse segments to which no free fragments are added. In containers of 1 pound or less of net contents, such segments are cut in lengths suitable for packing in one layer. In containers of more than 1 pound net contents, such segments may be cut in lengths suitable for packing in one or more layers of equal thickness. A piece of a segment may be added if necessary to fill a container. The proportion of free flakes broken from loins in the canning operation shall not exceed 18 percent.

(2) Chunks or chunk style consists of a mixture of pieces of tuna in which the original muscle structure is retained. The pieces may vary in size, but not less than 50 percent of the weight of the pressed contents of a container is retained on ½-inch-mesh screen.

(3) Flakes consist of a mixture of pieces of tuna in which more than 50 percent of the weight of the pressed contents of the container will pass through a ½-inch-mesh screen, but in which the muscular structure of the fish is retained.

(4) Grated consists of a mixture of particles of tuna that have been reduced to uniform size and in which more than 50 percent of the pressed weight of the contents of the container will pass through a ½-inch-mesh screen, and in which the particles are discrete and do not comprise a paste.

(d) Canned tuna, in any of the forms of pack specified in paragraph (c) of this section, falls within one of the following color designations, measured by visual comparison with matte surface neutral reflectance standard corresponding to the specified Munsell units of value, determined in accordance with paragraph (g) of this section:

(1) *White tuna.* This color designation is limited to the species of tuna Thunnus germo (albacore), and is not darker than Munsell value 6.3.

(2) *Light tuna.* This color designation includes any tuna not darker than Munsell value 5.3.

(3) *Dark tuna.* This color designation includes all tuna darker than Munsell value 5.3.

(4) *Blended tuna.* This color designation may be applied only to tuna flakes specified in paragraph (c) (3) of this section, which consist of a mixture of tuna flakes a substantial portion of which meet the color standard for either white tuna or light tuna, and the remainder of which fall within the color standard for dark tuna. The color designation for blended tuna is determined in accordance with paragraph (g) of this section.

(e) Canned tuna is packed in one of the following optional packing media:

(1) Any edible vegetable oil other than olive oil, or any mixture of such oils not containing olive oil.

(2) Olive oil.

(3) Water.

(f) Canned tuna may be seasoned or flavored with one or more of the following:

(1) Salt.

(2) Purified monosodium glutamate.

(3) Hydrolyzed protein.

(4) Hydrolyzed protein with reduced monosodium glutamate content.

(5) Spices or spice oils or spice extracts.

(6) Vegetable broth or sauce, in an amount not in excess of 5 percent of the volume capacity of the container, such broth or sauce to consist of a minimum of 0.5 percent by weight of vegetable extractives and to be prepared from two or more of the following vegetables: Beans, cabbage, carrots, celery, garlic, onions, parsley, peas, potatoes, red bell peppers and green bell peppers, spinach, and tomatoes.

(g) For determination of the color designations specified in paragraph (d) of this section, the following method shall be used: Recombine the separations of presscake resulting from the method prescribed in § 37.2 (b). Pass the combined portions through a circular sieve 12 inches in diameter, fitted with woven-wire cloth of ¼-inch mesh which complies with the specifications for such wire cloth set forth in "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. Mix the sieved material by hand, and place a sufficient quantity into a 307 x 113 size container (bearing a top seam and having a false bottom approximately ½-inch deep and painted flat black inside and outside) so that after tamping and smoothing the surface of the sample, the material will be ⅛-inch to ¼-inch below the top of the container.

(1) Determine the Munsell color value of the sample surface by visual comparison, using a comparator eyepiece containing a color filter centering between 550 mμ and 560 mμ, which filter does not pass significant amounts of visible radiation of wavelengths below 540 mμ or above 570 mμ.

(2) The standards with which comparisons are to be made are any essentially neutral matte finish standards of luminous reflectance equivalent to 6.3 and 5.3 Munsell units of value. These standards shall be cut in circles 3¼ inches in diameter and shall be mounted in 307 x 113 containers, bearing a top seam and painted flat black both inside and outside, so that the surfaces of the standard are 5/16-inch below the top of the containers in which they are mounted.

(3) In the case of blended tuna, the foregoing method shall be varied by first separating, as completely as feasible, the two different colors of tuna flakes, and then proceeding with each portion separately for the determination of its color value.

(h) (1) The specified names of the canned tuna for which definitions and standards of identity are prescribed by this section, except where water is the packing medium, are formed by combining the form of the pack with the color designation of the tuna; for example, "Solid Pack White Tuna," "Grated Dark Tuna," etc. In the case of blended tuna, there shall be used the applicable color designation of the blended flakes determined, in accordance with the color designation of the predominating portion found in the container; for example, "Blended White and Dark Tuna Flakes," "Blended Dark and Light Tuna Flakes."

(2) The specified name of the canned tuna when water is used as the packing medium is formed as described in subparagraph (1) of this paragraph, followed by the words "In water" for example, "Grated Light Tuna in Water."

(3) When the packing medium is vegetable oil or olive oil, the label shall bear the name of the optional packing medium used, as specified in paragraph (e) of this section, preceded by the word "in" or the words "packed in." In the case of the optional ingredient specified in paragraph (e) (1) of this section, the

name or names of the oil used may be stated, or the general term "Vegetable Oil" may be used.

(4) In case solid pack white, light, or dark tuna is packed in olive oil, the designation "Tonno" may also appear.

(5) Where the canned tuna contains one of the ingredients listed in paragraph (f) of this section, the label shall bear the statement "Seasoned with ....," the blank being filled in with the name or names of the ingredient or ingredients used, except that if the ingredient designated in paragraph (f) (6) of this section is used, the label shall bear the statement "Seasoned with Vegetable Broth" or "Seasoned with Vegetable Sauce," and if the ingredient designated in paragraph (f) (5) of this section is used alone, the label may bear the statement "Spiced" or "With Added Spice."

(6) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the names of optional ingredients used as specified by subparagraphs (3) and (5) of this paragraph shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the common name of the species of tuna fish used may be so intervened, but the species name "albacore" may be employed only for fish of that species which meets the color designation prescribed by paragraph (d) (1) of this section.

§ 37.2 *Canned tuna; fill of container; label statement of substandard fill.* (a) (1) The standard of fill of container for canned tuna is a fill such that the average weight of the pressed cake from 24 cans, as determined by the method prescribed by paragraph (b) of this section, is not less than the minimum value specified for the corresponding can size and form of tuna ingredient in the following table:

I. Can size and form of tuna ingredient	II. Minimum value for weights of pressed cake (average of 24 cans)
	Ounces
211 x 109:	
Solid	2.25
Chunks	1.08
Flakes	1.08
Grated	2.00
307 x 113:	
Solid	4.47
Chunks	3.02
Flakes	3.02
Grated	3.90
401 x 206:	
Solid	8.76
Chunks	7.68
Flakes	7.68
Grated	7.76
603 x 408:	
Solid	43.2
Chunks	37.9
Flakes	37.9
Grated	38.3

If the can size in question is not listed, calculate the value for column II as follows: From the list select as the comparable can size that one which has nearest the water capacity of the can size in question and multiply the value listed in column II for the same form of tuna ingredient by the water capacity of the can size in question and divide by the water capacity of the comparable can size. Water capacities are determined by the general method provided in § 10.2 (a) of this chapter.

(b) The methods referred to in paragraph (a) of this section for determining the weight of the pressed cake and referred to in § 37.1 (c) for determining the percent of free flakes and the percent of pieces which pass through a ½-inch-mesh sieve are as follows:

(1) Have each of the 24 cans and contents at a temperature between 65° F. and 80° F. Test each can in turn as follows:

(2) Cut out the top of the can (code end), using a can opener that does not remove nor distort the double seam.

(3) With the cut top held on the can contents, invert the can, and drain the free liquid by gently pressing on the cut lid with the fingers so that most of the free liquid comes from the can.

(4) With the cut lid still in place, cut out the bottom of the can with the can opener, then turn the can upright and remove the cut can top (code end). Scrape off any adhering tuna particles into the tuna mass in the can.

(5) Place the proper size press cylinder as provided in paragraph (c) (1) of this section in a horizontal position on a table, then using the cut bottom of the can as a pusher, gently force the can contents from the can into the cylinder. Remove the bottom of the can that was used as the pusher and scrape any adhering particles from the can body and bottom of the can, and put them in the cylinder.

(6) Place the cylinder plunger on top of the can contents in the cylinder. Remove the eyebolt and put the cylinder and plunger in position on the press (paragraph (c) (3) of this section).

(7) Begin the operation of the hydraulic ram of the press, and as soon as liquid is observed coming from the plunger start timing the operation. Apply pressure to the plunger slowly, so that a full minute is used to reach a pressure of 414 pounds per square inch on the can contents. Hold this pressure for 1 additional minute and then release the pressure. Tip the press cylinder so that any free liquid is drained out.

(8) Remove the piston from the pressing cup. Loosen the cake from the cup with a thin blade and remove the entire press cake as gently as possible, to keep the mass in a single cake during this operation. Place the cake and any pieces that adhered to the piston and pressing cup in a tared receiving pan and determine the weight of the pressed material.

(9) For cans larger than 401 x 206: Cut out the top of the can and drain off free liquid from the can contents as in subparagraphs (2) and (3) of this paragraph. Determine the gross weight of the can and remaining contents. Using a tared core cutter as provided for in paragraph (c) (2) of this section, cut vertically a core of the drained material in the can. Determine the weight of the core. With a thin spatula transfer the core to the pressing cup for 401 x 206 cans. Determine the press weight as in subparagraphs (5) and (8) of this paragraph. Remove the remaining drained contents of the can, reserving the contents for the determination of free flakes (subparagraph (11) of this paragraph), weigh the empty can, and calculate the weight of the total drained material. Calculate the weight of presscake on the entire can basis by multiplying the weight of the presscake of the core by the ratio of the weight of the drained contents of the can to the weight of the core before pressing.

(10) Repeat the press-weight determination on the remainder of the 24 cans and determine the average weight for the purpose of paragraph (a) of this section.

(11) Determination of free flakes: If the optional form of tuna ingredient is solid pack, determine the percent of free flakes. Only fragments that were broken in the canning procedure are considered to be free flakes. If the can is of such size that its entire drained contents were pressed as described in subparagraphs (1) to (8), inclusive, of this paragraph, examine the presscake carefully for free flakes; using a spatula, scrape free flakes gently from the outside of the cake. Examine the body of the presscake itself as carefully as possible for free flakes that may have been added in the packing. Weigh the total free flakes and determine the percent by weight of flakes to the total weight of presscake. If the can is of such size that a core was cut out for pressing as described in subparagraph (9) of this paragraph, make the examination for free flakes on a weighed portion of the drained material remaining after the core was removed. The weight of the portion should approximately equal the weight of the core before pressing. Carefully examine the weighed portion, pick out free flakes and weigh them. Calculate the weight of the free flakes as a percentage of the weight of the portion examined.

(12) Determination of particle size: If the optional form of tuna ingredient is chunks, flakes, or grated, the presscake resulting from the operations described in subparagraphs (1) to (9), inclusive, of this paragraph is gently separated by hand, care being taken to avoid breaking the pieces. The separated pieces are evenly distributed over the top sieve of the screen separation equipment

described in paragraph (c) (4) of this section. Beginning with the top screen, lift and drop each sieve by its open edge three times. Each time, the open edge of the sieve is lifted the full distance permitted by the device. Combine and weigh the material remaining on the three top screens (1½-inch, 1-inch, ½-inch screens), and determine the combined percentage retention by weight in relation to the total press weight.

(c) (1) The pressing cups and pistons referred to in paragraph (b) of this section are made of stainless steel. The pressing cups are made with a lip to facilitate collection of the liquid. Pistons have a threaded center hole about half as deep as the thickness of the piston. The hole is for receiving a ringbolt to assist in removing the piston from the pressing cup. Dimensions for pressing cups and pistons are as follows:

For can size 211 x 309

Pressing cup:
Inside depth, approximately 3⅛ inches.
Inside diameter 2.593 inches.
Wall thickness, approximately 1/16 inch.
Piston:
Thickness, approximately 1 inch.
Diameter, 2.568 inches.

For can size 307 x 113

Pressing cup:
Inside depth, approximately 4 inches.
Inside diameter, 3.344 inches.
Wall thickness, approximately 1/16 inch.
Piston:
Thickness, approximately 1¼ inches.
Diameter, 3.319 inches.

For can size 401 x 206

Pressing cup:
Inside depth, approximately 4⅛ inches.
Inside diameter, 3.969 inches.
Wall thickness, approximately 1/16 inch.
Piston:
Thickness, approximately 1¼ inches.
Diameter, 3.944 inches.

For can sizes where the diameter is greater than 401, the core cutter described in subparagraph (2) of this paragraph shall be used and the resulting core pressed in the pressing cup for can size 401 x 206. For can sizes differing from those specified above, special pressing cups and pistons may be used. Special pressing cups have inside diameters 1/10-inch less than the outside diameters at the double seam for the can sizes for which the cups are used, and the piston diameters are 0.025 inch less than the inside diameters of the pressing cups.

(2) The core cutter referred to in paragraphs (b) (9) and (11) of this section and subparagraph (1) of this paragraph is made from a previously sealed 300 x 407 can. The cover, including the top seam, is cut out. The edge is smoothed and sharpened. A small hole to permit passage of air is made in the bottom.

(3) The hydraulic press referred to in paragraph (b) (6) to (10), inclusive, of this section is made by so mounting a hydraulic jack in a strong frame that it will press horizontally against the center of the piston in the pressing cup used. The frame should be so braced that it does not change shape when pressure is applied. Provision is made for collecting the pressed-out liquid in a suitable receptacle. The gauge on the hydraulic jack is so calibrated that it will indicate for the piston being used when the piston is pressing against the contents of the pressing cup with a pressure of 414 pounds per square inch of piston face.

(4) The sieving device referred to in paragraph (b) (12) of this section consists of three sieves, each approximately 1 foot square, loosely mounted, one above the other, in a metal frame. The mesh in the top sieve complies with the specifications for 1½-inch woven-wire cloth as set forth in "Standard Specifications for Sieves," as published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. The meshes in the sieves below comply with similar specifications for 1-inch and ½-inch woven-mesh cloth as set forth in the same publication. The sides of each sieve are formed from ¾-inch metal strap. The frame has tracks made of ⅝-inch angle metal to support each sieve under each side. The tracks are so positioned as to permit each sieve a free vertical travel of 1¾ inches.

(d) If canned tuna falls below the applicable standard of fill of container prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill provided in §10.3 (b) of this chapter, in the manner and form therein specified.

2. The proposals of Hawaiian Tuna Packers Limited are as follows:

a. That § 37.1 (g) and (h) in the above-proposed standard of identity for canned tuna be redesignated as (h) and (i), respectively, and that a new paragraph (g), reading as follows, be inserted therein:

(g) Any one of the forms of pack of canned tuna specified in paragraph (c) of this section may be smoked. Canned smoked tuna will be labeled in accordance with the provisions of paragraph (i) (5) of this section.

b. In § 37.1 (i), redesignated as above, subparagraphs (5) and (6) would be redesignated as (6) and (7), respectively, and it is proposed that a new subparagraph (5), reading as follows, be inserted therein:

(5) In case any of the forms of canned tuna specified in paragraph (c) of this section are smoked, the designation "Smoked" shall appear on the label, as for example, "Light Smoked Tuna Flakes."

3. The proposal of the California Fish Canners Association, Inc., is as follows: That the proposed standard of identity for canned tuna fish submitted by the National Canners Association et al. be amended to incorporate garlic as an ingredient, under § 37.1 (f) of the proposal. Paragraph (f) would read as follows:

(f) Canned tuna may be seasoned or flavored with one or more of the following:

(1) Salt.

(2) Purified monosodium glutamate.

(3) Hydrolyzed protein.

(4) Hydrolyzed protein with reduced monosodium glutamate content.

(5) Spices or spice oils or spice extracts.

(6) Vegetable broth or sauce, in an amount not in excess of 5 percent of the volume capacity of the container, such broth or sauce to consist of a minimum of 0.5 percent by weight of vegetable extractives and to be prepared from two or more of the following vegetables: Beans, cabbage, carrots, celery, garlic, onions, parsley, peas, potatoes, red bell peppers, green bell peppers, spinach, and tomatoes.

(7) Garlic.

Dated: August 20, 1956.

[SEAL] JOHN L. HARVEY,
Deputy Commissioner of Food and Drugs

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